

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P709033

Luminaire Tested: **24APR-49-116L935-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709033
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-49-116L935-UNV
Description: ArcMed Patient Recessed 2x4 Fixture Ambient and Exam Light
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

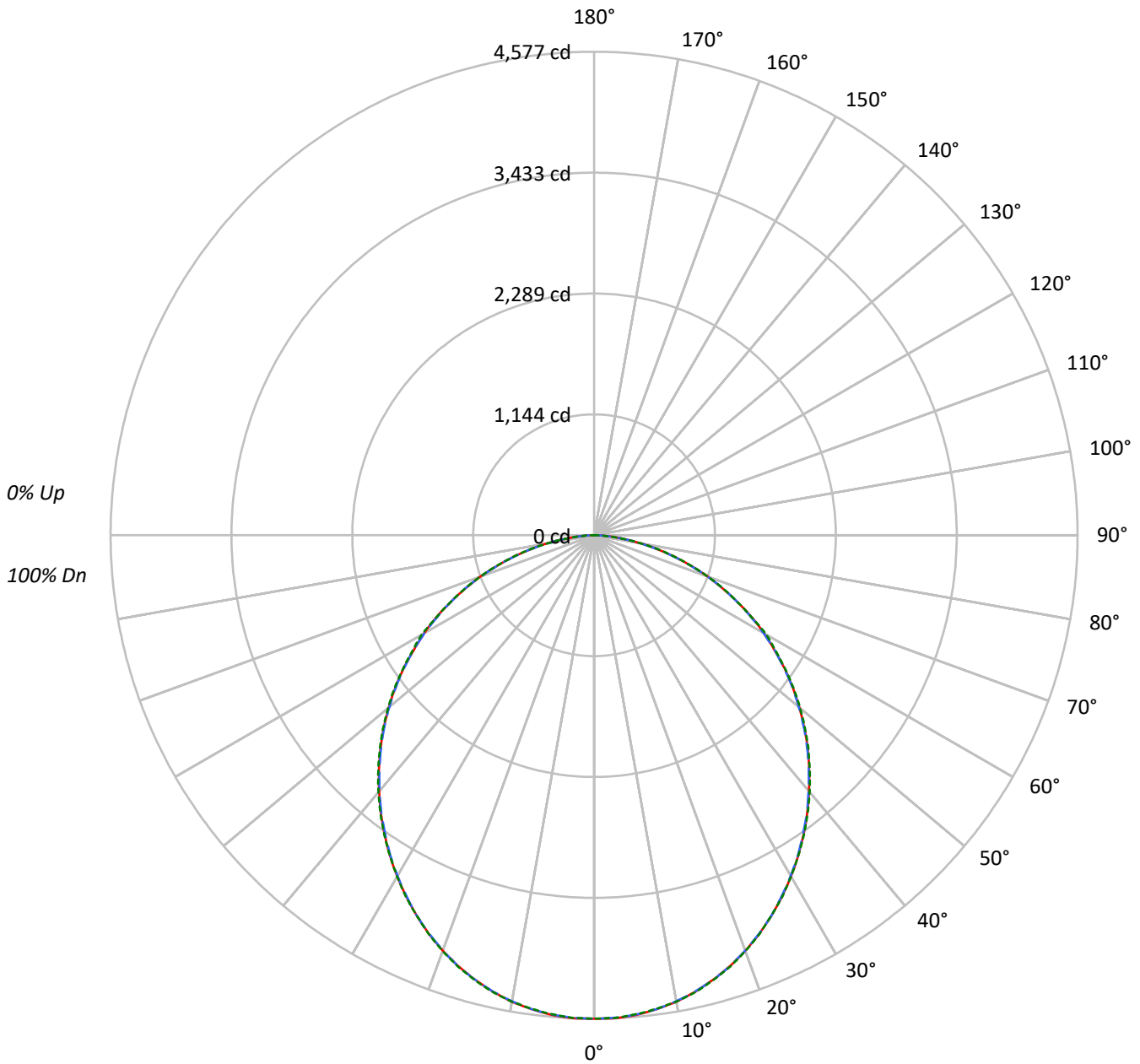
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12351.2 lumens
Efficiency: N/A
Efficacy: 96.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 128.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270°



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	109	104	100	96	106	102	98	94	98	94	92	94	91	89	90	88	86	86	86	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	72	72	72	70
3	90	80	72	65	88	78	71	65	75	69	63	73	67	62	70	65	61	61	61	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	53	53	53	51
5	76	63	54	48	74	62	54	47	60	53	47	58	52	46	56	51	46	46	46	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	40	40	40	38
7	65	52	43	37	64	51	43	37	49	42	36	48	41	36	47	41	36	36	36	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	32	32	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	29	29	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	26	26	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6158	6158	6158
5°	6158	6153	6149
10°	6126	6121	6126
15°	6069	6069	6075
20°	5994	5990	5999
25°	5900	5897	5897
30°	5793	5785	5794
35°	5680	5665	5687
40°	5560	5549	5578
45°	5441	5430	5459
50°	5311	5297	5331
55°	5166	5153	5183
60°	4995	4983	5071
65°	4768	4769	4782
70°	4506	4482	4511
75°	4111	4079	4106
80°	3549	3505	3529
85°	2768	2742	2734



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	432.6	3.5
10°-20°	1228.5	9.9
20°-30°	1829.5	14.8
30°-40°	2161.5	17.5
40°-50°	2205.1	17.9
50°-60°	1967.5	15.9
60°-70°	1483.3	12.0
70°-80°	831.7	6.7
80°-90°	211.6	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	3490.6	28.3
0°-40°	5652.1	45.8
0°-60°	9824.6	79.5
0°-90°	12351.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12351.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4577	4577	4577	4577	4577	
5°	4560	4558	4555	4556	4553	433
15°	4357	4354	4357	4360	4361	1228
25°	3974	3969	3972	3976	3972	1830
35°	3458	3453	3449	3459	3462	2163
45°	2859	2858	2854	2862	2869	2205
55°	2202	2197	2196	2203	2210	1967
65°	1498	1490	1498	1502	1502	1486
75°	791	777	785	780	790	837
85°	179	173	178	177	177	214
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4576.8	4576.8	4576.8	4576.8	4576.8
2.5°	4576.8	4574.6	4572.9	4572.4	4573.3
5°	4559.7	4557.5	4555.3	4556.2	4552.7
7.5°	4526.7	4527.2	4525.4	4525.8	4521.9
10°	4484.1	4481.9	4480.1	4484.1	4483.6
12.5°	4426.5	4422.5	4424.3	4430.5	4430.9
15°	4356.6	4354.0	4356.6	4359.7	4361.4
17.5°	4277.0	4274.8	4277.9	4278.4	4281.9
20°	4186.1	4183.4	4183.4	4187.8	4189.6
22.5°	4085.4	4081.4	4082.3	4085.4	4087.6
25°	3974.2	3969.3	3972.4	3975.9	3972.4
27.5°	3854.2	3851.5	3848.5	3852.9	3858.6
30°	3728.9	3723.6	3723.2	3726.3	3729.3
32.5°	3596.6	3590.4	3590.4	3594.4	3597.0
35°	3458.1	3453.3	3448.9	3459.0	3462.5
37.5°	3315.3	3309.5	3309.1	3315.3	3321.0
40°	3165.4	3160.5	3159.2	3169.8	3175.9
42.5°	3014.2	3011.1	3008.0	3018.5	3023.4
45°	2859.4	2857.7	2853.7	2862.1	2869.1
47.5°	2700.3	2694.6	2693.3	2702.9	2710.0
50°	2537.2	2535.0	2530.6	2539.4	2546.9
52.5°	2371.9	2369.3	2366.2	2374.1	2382.0
55°	2202.3	2197.4	2196.5	2203.1	2209.7
57.5°	2025.6	2021.6	2027.8	2033.9	2039.2
60°	1856.3	1847.1	1851.9	1859.0	1884.5
62.5°	1686.2	1669.9	1673.5	1692.8	1681.8
65°	1497.6	1490.2	1498.1	1502.5	1502.0
67.5°	1320.9	1312.1	1324.0	1320.5	1325.8
70°	1145.5	1130.1	1139.4	1140.7	1146.8
72.5°	964.4	951.2	959.1	963.1	967.1
75°	790.8	777.2	784.6	780.2	789.9
77.5°	618.0	609.7	614.5	617.6	625.1
80°	458.0	448.8	452.3	452.8	455.4
82.5°	310.3	303.3	304.2	312.1	309.0
85°	179.3	172.8	177.6	177.1	177.1
87.5°	69.9	64.6	69.5	69.0	68.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)